

ABSTRACT

A liquid crystal display device 10 comprises a surface light source device of side light type 11 and a liquid crystal display panel 12 mounted on an upper face of the device. Illumination light L from a fluorescent lamp 8 is, directly or after being reflected by a reflector 9, into a guide plate 13 through an incidence face 13A. On the way of inner propagation, oblique preferential emission from an emission face 13C occurs. Scattering pattern formed on the emission face 13C promotes emission. A back face 13B provides a light control face which corrects directivity toward a frontal direction regarding in a plane parallel to the incidence end face 13A. Directivity of output illumination is further corrected toward a frontal direction regarding in a plane perpendicular to the incidence end face 13A by means of a prism sheet 21 with which the liquid crystal display panel 12 is equipped. The prism sheet 21 provides a composite optical element unified with a polarization film 16. Light component transmitting the polarization film 16 is then supplied to liquid crystal 18. Output light from the liquid crystal 18 impinges onto a polarization film 20. Light component corresponding to a transmission polarization plane of the polarization film 20 is outputted out of the device after being transmitting the polarization film 20. Distribution of output intensity is controlled depending on voltage applied to transparent electrodes, thereby displaying image variably. The prism sheet 21 may be coupled with an other member such as polarization separating sheet member or light diffusion member to provide a composite element. Projection rows of the prism are prevented from being damaged or deformed, with the result that quality of illumination and accordingly display quality of the liquid crystal display device are kept high.

(Fig. 1)